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REMARKS

The present invention addresses the problems of providing ancillary video content or image data to a viewer along with a specific program to be broadcast over a broadcasting network for both information purposes and to enable an interactive procedure between the viewer and stored data. Our broadcasting apparatus addresses limited availability of bandwidth and further storage capacity at the receiving end to permit a real time interaction without any wait time as perceived by the viewer. Thus, the viewer will be able to select and read image data and exercise certain available options without any apparent delays at the same time as viewing, for example, a movie. The present invention provides not only a broadcasting apparatus and method of broadcasting, it also provides a program that can be appropriately stored and executed to enable the advantages of the present invention.

The Office Action rejected Claims 1, 2, 5, 6, 9 and 10 over the *Willard* (U.S. Patent No. 6,374,405. The Office Action further contended that Claims 3, 4, 7 and 8 would be obvious over the *Willard* reference when taken with an Official Notice that generating messages for triggering a reproduction with interactive content stored in a setup box during the reproduction time period was well known in the art.

While it is believed that the newly drafted claims moot this rejection, applicant would request, pursuant to MPEP §706.02(a), that a reference be cited rather than an Official Notice taken, particularly in view of the limited teaching in the *Willard* reference.

The *Willard* reference appears to be based on a proposed broadcasting system since the drawings are of a very general schematic format and the specification seems to be embellishing

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upon an idea that may have not been implemented in an actual broadcasting system at the time for filing of this invention.

The basic idea in *Willard* is to provide a system in which to deliver a module to a receiving station at a particular time through the use of a scheduler that delays transmission of a last packet of the module that comprises the content to be delivered so that this last packet is delivered just at the scheduled delivery time. For instance, if there are multiple packets that comprise the content, the scheduler can control, for example, a multiplexer to start transmission of the packets at a start time but will hold back one packet so that it is delivered at the scheduled delivery time. See, for example, Figure 4, Column 6, Lines 17-46 of the *Willard* disclosure. The remainder of the drawings and specification of *Willard* discloses general contents of a broadcast system, including the makeup of a header for a particular packet.

Thus, *Willard*, as noted in the Office Action, teaches the transmission of a plurality of packets starting from a transmission starting time with the last packet to be held to the scheduled transmission finishing time for that specific program. This feature of "holding the last one or more packets in said broadcast station" and transmitting it "to said receiving station at said delivery time" is the essence of the teaching of the *Willard* patent and apparently, represents the novelty set forth in the claims. Since the patentability of the *Willard* patent is based upon this conceptual feature alone, applicant believes that it is important to have specific references addressing our features rather than have any Official Notice taken.

Our present invention as defined by the present claims, provides a broadcasting apparatus and method that is capable of transmitting not only the data of a specific program (e.g., a movie), but also the data of another program (e.g., ancillary data shown in Fig. 10A) that can be received

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prior to the reproduction time period of the specific program so that any interactive operations will be free from any waiting time of receiving data, since the data will have already been received from the beginning of the reproduction time period of the specific program, see Figure 5. We provide a specific advantage in implementing interactive broadcasting with the viewer within the constraints and economics of both a broadcasting system and the capabilities of an economical set top box reception device.

The Office Action relied upon a general teaching of *Willard* for the delivery of a module of program data at a particular time with packets of the module started sufficiently early to allow transmission before a required delivery time. The scheduler is purportedly modified so that the last packet is delivered right at the scheduled delivery time. Purportedly, this feature provides a mechanism which allows flexibility in schedule and delivery of modules while maintaining an accurate determination of delivery times. See Column 3, Lines 30-33 of the *Willard* disclosure.

*Willard* fails, however, to go into any specifics that would be encountered by an actual system and which were resolved by the present invention. For example, our newly drafted Claim 11 defines the transmission unit as transmitting ancillary data including contents having scripts for control for a duration from a broadcast starting time of the specific program to a reproduction finishing time of the specific program. Our scheduling unit can provide instructions that facilitates this operation, including messages that are capable of managing the resources that are available including deleting ancillary data when obsolete.

Thus, an event message can have an ID of the data module as a target and a content with a script can be a program in which a process is implemented, e.g., delete, reproduce and cache the specific content data.

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More specifically, both the apparatus and method steps in the respective new independent claims describe a capacity of the transmission unit to transmit contents including scripts for control, for a duration from the broadcast starting time of a specific program, to the reproduction finishing time, and the scripts for control perform controls so that the specific program is stored in case of receiving a first message, e.g. cache, and the specific program is reproduced in case of receiving a second message.

As noted in the Office Action, the *Willard* reference lacks any teaching with regards to these features, as set forth on Page 4 of the Office Action.

Reference can be made to Page 11 of our present application, Lines 3-21 for support for these features. See also Page 13, Lines 11-15 and Page 18, Lines 5-19. As can be appreciated, these event messages also regulate the amount of memory necessary by appropriately providing, for example, delete event messages corresponding to the transmission and reproduction of content to the viewer.

In essence, the present invention provides a higher level of editing control which is neither taught nor contemplated by the *Willard* reference in a relatively crowded art. The *Willard* reference is addressing only one feature, to manipulate a scheduling unit in the transmission apparatus. It does not recognize nor address the broader issues resolved by the present invention.

In view of the present claims, it is respectfully submitted that an Official Notice is not appropriate since there is a lack of a teaching reference that would suggest the advantages of the present invention.

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Even if hypothetically, the prior art *may* be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification. *In re Fritch*, 23 USPQ 2d 1780, 1783-84 (Fed. Cir. 1992).

[T]he level of skill in the art is a prism or lens through which a judge or jury views the prior art and the claimed invention. This reference point prevents these deciders from using their own insight or, worse yet, hindsight, to gauge obviousness. Rarely, however, will the skill in the art component operate to supply missing knowledge or prior art to reach an obviousness judgment. Skill in the art does not act as a bridge over gaps in substantive presentation of an obviousness case, but instead supplies the primary guarantee of objectivity in the process. *Al-Site Corp. v. VSI International, Inc.*, 50 U.S.P.Q.2d 1161 (Fed. Cir. 1999) (citations omitted).

The Federal Circuit addressed this issue in the case of *In re Rouffet*, 47 U.S.P.Q.2d 1453, 149 F.3d 1350 (Fed. Cir. 1998). In *Rouffet*, the Court noted that virtually all inventions are combinations of old elements. It concluded that:

an examiner may often find every element of a claimed invention in the prior art. If identification of each claimed element in the prior art were sufficient to negate patentability, very few patents would ever issue. Furthermore, rejecting patents solely by finding prior art corollaries for the claimed elements would permit an examiner to use the claimed invention as a blueprint for piecing together elements in the prior art to defeat the patentability of the claimed invention. Such an approach would be 'an illogical and inappropriate process by which to determine patentability. *Id.* at 1357.

The Court pointed to the absence of any teaching *in the cited references* for making the proposed modifications, and found that the Board had *reversibly erred* in determining that the invention was rendered obvious because there was no identification of motivation to choose the selected features.

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In summary, our invention teaches editing features available to provide a real time interaction with ancillary data that can supplement a broadcast program. The Willard reference basically addresses a scheduling procedure by holding back a last packet of data to a scheduled delivery time period. It is not seen how a person of ordinary skill in this field would be taught our claimed features from this reference.

If the Examiner believes a telephone interview will help further the prosecution of the case, he is respectfully requested to contact the undersigned attorney at the listed phone number.

I hereby certify that this correspondence is being transmitted via facsimile to the USPTO at 571-273-8300 on April 3, 2006.

Very truly yours,

**SNELL & WILMER L.L.P.**

By: Sharon Farnous

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Signature

Dated: April 3, 2006

  
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